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Substitute for form 1449A-PTO (Modified)		Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)		Application Number	10/823,503
		Filing Date	April 12, 2004
		First Named Inventor	O'CONNOR, Stephen D.
		Art Unit	1753
		Examiner Name	NOGUEROLA, Alexander S.
Sheet 1 of 21	Attorney Docket Number	A-66566-7 (463037-00323)	

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number Number-Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	A1 †	4,704,193	11-17-1987	Bowers et al.	
	A2 †	4,707,352	11-17-1987	Stavrianopoulos	
	A3 †	4,707,440	11-17-1987	Stavrianopoulos	
	A4 †	4,711,955	12-08-1987	Ward, et al.	
	A5 †	4,755,458	07-05-1988	Rabbani, et al.	
	A6 †	4,787,963	11-29-1988	MacConnell	
	A7 †	4,840,890	06-20-1989	Hill et al.	
	A8 †	4,840,893	06-20-1989	Hill et al.	
	A9 †	4,849,513	07-18-1989	Smith, et al.	
	A10 †	4,868,103	09-19-1989	Stavrianopoulos, et al.	
	A11 †	4,894,325	01-16-1990	Englehardt, et al.	
	A12 †	4,908,319	03-13-1990	Smyczek et al.	
	A13 †	4,943,523	07-24-1990	Stavrianopoulos	
	A14 †	4,952,685	08-28-1990	Stavrianopoulos	
	A15 †	4,994,373	02-19-1991	Stavrianopoulos	
	A16 †	5,002,885	03-26-1991	Stavrianopoulos	
	A17 †	5,013,831	05-07-1991	Stavrianopoulos	
	A18 †	5,015,569	05-14-1991	Pontius	
	A19 †	5,064,618	11-12-1991	Baker et al.	
	A20 †	5,082,830	01-21-1992	Brakel, et al.	
	A21 †	5,089,112	02-18-1992	Skotheim et al.	
	A22 †	5,098,781	03-24-1992	Minnick et al.	
	A23 †	5,100,775	03-31-1992	Smyczek et al.	

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Sheet	2	of	21	Attorney Docket Number	A-66566-7 (463037-00323)

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	A24 †	5,106,751	04-21-1992	Newman	
	A25 †	5,126,022	06-30-1992	Soane et al.	
	A26 †	5,126,034	06-30-1992	Carter et al.	
	A27 †	5,147,607	09-15-1992	Mochida	
	A28 †	5,156,810	06-15-1989	Ribi	
	A29 †	5,175,269	12-29-1092	Stavrianopoulos	
	A30 †	5,180,968	01-19-1993	Bruckenstein et al.	
	A31 †	5,194,133	03-16-1993	Clark et al.	
	A32 †	5,200,051	04-06-1993	Cozzette et al.	
	A33 †	5,241,060	08-31-1993	Englehardt, et al.	
	A34 †	5,242,828	09-07-1993	Bergstrom et al.	
	A35 †	5,278,043	01-11-1995	Bannwarth, et al.	
	A36 †	5,296,375	03-22-1994	Kricka et al.	
	A37 †	5,304,487	04-19-1994	Wilding et al.	
	A38 †	5,312,527	05-17-1994	Mikkelsen, et al.	
	A39 †	5,328,824	07-12-1994	Ward, et al.	
	A40 †	5,356,786	10-18-1994	Heller et al.	
	A41 †	5,391,272	02-21-1995	O'Daly et al.	
	A42 †	5,403,451	04-04-1995	Rivello et al.	
	A43 †	5,436,161	07-25-1995	Bergstrom et al.	
	A44 †	5,437,999	08-01-1995	Diebold et al.	
	A45 †	5,443,701	08-22-1995	Willner et al.	
	A46 †	5,449,767	09-12-1995	Ward, et al.	

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		Art Unit	1753		
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Sheet	3	of	21	Attorney Docket Number	A-66566-7 (463037-00323)

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	A47 †	5,472,881	12-05-1995	Beebe et al.	
	A48 †	5,476,928	12-19-1995	Ward et al.	
	A49 †	5,486,335	01-23-1996	Wilding et al.	
	A50 †	5,491,097	02-13-1996	Ribi et al.	
	A51 †	5,498,392	03-12-1996	Wilding et al.	
	A52 †	5,505,321	04-09-1996	Caron et al.	
	A53 †	5,532,128	07-02-1996	Eggers et al.	
	A54 †	5,552,270	09-03-1996	Khrapko et al.	
	A55 †	5,565,322	10-15-1996	Heller	
	A56 †	5,565,552	10-15-1996	Magda et al.	
	A57 †	5,571,568	11-05-1996	Ribi et al.	
	A58 †	5,573,906	11-12-1996	Bannwarth et al.	
	A59 †	5,582,984	12-10-1996	Bieniarz et al.	
	A60 †	5,585,069	12-17-1996	Zanzucchi et al.	
	A61 †	5,587,128	12-24-1996	Wilding et al.	
	A62 †	5,591,578	01-07-1997	Meade et al.	
	A63 †	5,593,838	01-14-1997	Zanzucchi et al.	
	A64 †	5,595,908	01-21-1997	Fawcett et al.	
	A65 †	5,601,982	02-11-1997	Sargent et al.	
	A66 †	5,603,351	02-18-1997	Cherukuri et al.	
	A67 †	5,605,662	02-18-1997	Heller et al.	
	A68 †	5,620,850	04-15-1997	Bamdad et al.	
	A69 †	5,632,876	05-27-1997	Zanzucchi et al.	

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			Examiner Name	NOGUEROLA, Alexander S.	
Sheet	4	of	21	Attorney Docket Number	A-66566-7 (463037-00323)

U.S. PATENT DOCUMENTS					
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	A70 †	5,632,957	05-27-1997	Heller et al.	
	A71 †	5,635,358	06-03-1997	Wilding et al.	
	A72 †	5,637,469	06-10-1997	Wilding et al.	
	A73 †	5,643,738	07-01-1997	Zanzucchi et al.	
	A74 †	5,653,939	08-05-1997	Hollis et al.	
	A75 †	5,657,208	08-12-1997	Noe et al.	
	A76 †	5,670,322	09-23-1997	Eggers et al.	
	A77 †	5,681,484	10-28-1997	Zanzucchi et al.	
	A78 †	5,694,932	12-09-1997	Michel	
	A79 †	5,700,667	12-23-1997	Marble et al.	
	A80 †	5,705,346	01-06-1998	Okamoto et al.	
	A81 †	5,705,348	01-06-1998	Meade et al.	
	A82 †	5,726,026	03-10-1998	Wilding et al.	
	A83 †	5,727,548	03-17-1998	Hill et al.	
	A84 †	5,728,352	03-17-1998	Ackley	
	A85 †	5,728,532	03-17-1998	Ackley et al.	
	A86 †	5,741,700	04-01-1998	Ershov et al.	
	A87 †	5,750,015	05-12-1998	Soane et al.	
	A88 †	5,755,942	05-26-1998	Zanzucchi et al.	
	A89 †	5,756,050	05-26-1998	Ershov et al.	
	A90 †	5,759,866	06-02-1998	Machida et al.	
	A91 †	5,770,029	06-23-1998	Nelson et al.	
	A92 †	5,770,369	06-23-1998	Meade et al.	

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	A93 †	5,770,721	6-23-1998	Ershov et al.	
	A94 †	5,776,672	07-07-1998	Hashimoto et al.	
	A95 †	5,780,234	07-14-1998	Meade et al.	
	A96 †	5,785,789	07-28-1998	Gagnon et al.	
	A97 †	5,795,453	08-18-1998	Gilmartin	
	A98 †	5,824,473	10-20-1998	Meade et al.	
	A99 †	5,837,859	11-17-1998	Teoule et al.	
	A100 †	5,843,767	12-01-1998	Beattie	
	A101 †	5,849,486	12-15-1998	Heller et al.	
	A102 †	5,851,772	12-15-1998	Mirzabekov et al.	
	A103 †	5,945,286	03-31-1999	Krihak et al.	
	A104 †	5,952,172	09-14-1999	Meade et al.	
	A105 †	5,968,745	10-19-1999	Thorp et al.	
	A106 †	6,013,170	01-11-2001	Meade	
	A107 †	6,013,459	01-11-2001	Meade	
	A108 †	6,020,047	02-01-2000	Everhart	
	A109 †	6,051,380	04-18-2000	Sosnowski et al.	
	A110 †	6,060,023	05-09-2000	Maracas	
	A111 †	6,060,327	05-09-2000	Keen	
	A112 †	6,063,573	05-16-2000	Kayyem	
	A113 †	6,071,699	06-06-2000	Meade et al.	
	A114 †	6,087,100	07-11-2000	Meade et al.	
	A115	6,090,933	07-18-2000	Kayyem et al.	

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	A116 †	6,096,273	11-01-2000	Kayyem et al.	
	A117 †	6,096,825	08-01-2000	Garnier et al.	
	A118 †	6,099,803	08-08-2000	Ackley et al.	
	A119 †	6,107,080	08-22-2000	Lennox	
	A120 †	6,177,250 B1	01-23-2001	Meade et al.	
	A121 †	6,180,352 B1	01-30-2001	Meade et al.	
	A122 †	6,200,761 B1	03-13-2001	Meade et al.	
	A123 †	6,203,758 B1	03-20-2001	Marks et al.	
	A124 †	6,221,583 B1	04-24-2001	Kayyem et al.	
	A125 †	6,232,062 B1	05-15-2001	Kayyem et al.	
	A126 †	6,238,624 B1	05-29-2001	Heller et al.	
	A127 †	6,238,870 B1	05-29-2001	Meade et al.	
	A128 †	6,248,229 B1	06-19-2001	Meade	
	A129 †	6,258,545 B1	07-10-2001	Meade et al.	
	A130 †	6,264,825 B1	07-24-2001	Blackburn et al.	
	A131	6,277,576 B1	08-21-2001	Meade et al.	
	A132	6,286,149 B1	07-31-2001	Meade et al.	
	A133 †	6,290,839 B1	09-18-2001	Kayyem et al.	
	A134 †	6,322,979 B1	11-27-2001	Bamdad et al.	
	A135 †	6,391,558 B1	05-21-2002	Henkens et al.	
	A136 †	6,416,642 B1	07-22-2002	Alajoki et al.	
	A137 †	6,461,820 B1	10-08-2002	Barton et al.	
	A138 †	6,478,939 B1	11-12-2002	Lennox et al.	

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Sheet	7	of	21	Attorney Docket Number	A-66566-7 (463037-00323)

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number Number-Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
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	A140 †	6,495,323 B1	12-17-2002	Kayyem et al.	
	A141 †	6,528,266 B2	03-04-2003	Meade et al.	
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	A161 †	2002-0009810 A1	01-24-2002	O'Connor et al.	

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			Application Number	10/823,503	
			Filing Date	April 12, 2004	
			First Named Inventor	O'CONNOR, Stephen D.	
			Art Unit	1753	
Examiner Name	NOGUEROLA, Alexander S.				
Attorney Docket Number	A-66566-7 (463037-00323)				
Sheet	8	of	21		

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	B1 †	CA 2,090,904	09-24-1993	Hoffman La Roche		
	B2 †	EP 0 063 879 A1	11-03-1982	Yale University		
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			Filing Date	April 12, 2004	
			First Named Inventor	O'CONNOR, Stephen D.	
			Art Unit	1753	
Examiner Name	NOGUEROLA, Alexander S.				
Sheet	9	of	21	Attorney Docket Number	A-66566-7 (463037-00323)

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	B19 †	WO 93/22678 A2/A3	1101101883	Massachusetts Institute of Technology		
	B20 †	WO 93/23425 A1	11-25-1993	The Ontario Cancer Institute		
	B21 †	WO 94/22889 A1	10-13-1994	Cis Bio International		
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		Filing Date	April 12, 2004		
		First Named Inventor	O'CONNOR, Stephen D.		
		Art Unit	1753		
		Examiner Name	NOGUEROLA, Alexander S.		
Sheet	10	of	21	Attorney Docket Number	A-66566-7 (463037-00323)

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	B42 †	WO 98/28444 A2/A3	07-02-1998	The University of Chicago		
	B43 †	WO 98/35232 A2/A3	08-13-1998	University of North Carolina at Chapel Hill		
	B44 †	WO 98/51823 A1	11-19-1998	Mosaic Technologies LLC		
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Sheet	11	of	21	Attorney Docket Number	A-66566-7 (463037-00323)

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	C4 †	ALLERMAN, K.S., et al., "Electrochemical Rectification at a Monolayer-Modified Electrode," <i>J. Phys. Chem.</i> 100:(42) 17050-17058 (1996).	
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Sheet	12	of	21	Attorney Docket Number	A-66566-7 (463037-00323)

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			Application Number	10/823,503	
			Filing Date	April 12, 2004	
			First Named Inventor	O'CONNOR, Stephen D.	
			Art Unit	1753	
			Examiner Name	NOGUEROLA, Alexander S.	
Sheet	13	of	21	Attorney Docket Number	A-66566-7 (463037-00323)

NON PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.		†
	C36 †	DONG, S., "Self-assembled monolayers of thiols on gold electrodes for bioelectrochemistry and biosensors," <i>Bioelectrochem. Bioenerg.</i> 42(1):7-13 (1997).		
	C37 †	DORON, A., et al., "An Electroactive Photoisomerizable Monolayer-Electrode: A Command Surface for the Amperometric Transduction of Recorded Optical Signals," <i>Angew. Chem. Int. Ed. Engl.</i> 35(13&14):1535-1538 (Jul. 1996).		
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	C50 †	FOX, M. A., et al., "Light-Harvesting Polymer Systems," <i>C&EN</i> , pages 38-48 (March 15, 1993).		

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Sheet	14	of	21	Attorney Docket Number	A-66566-7 (463037-00323)

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	C65 †	HELLER, A., "Electrical Wiring of Redox Enzymes," <i>Acc. Chem. Res.</i> , 23:128-134 (1990).		

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			First Named Inventor	O'CONNOR, Stephen D.	
			Art Unit	1753	
			Examiner Name	NOGUEROLA, Alexander S.	
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		Art Unit	1753		
		Examiner Name	NOGUEROLA, Alexander S.		
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	C82 †	KORRI-YOISSOUFI, H., et al., "Toward Bioelectronics: Specific DNA Recognition Based on an Oligonucleotide-Functionalized Polypyrrole," <i>J. Am. Chem.</i> 119:(31) 7388-7389 (1997).	
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			Application Number	10/823,503	
			Filing Date	April 12, 2004	
			First Named Inventor	O'CONNOR, Stephen D.	
			Art Unit	1753	
			Examiner Name	NOGUEROLA, Alexander S.	
Sheet	18	of	21	Attorney Docket Number	A-66566-7 (463037-00323)

NON PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.		†*
	C112 †	NAPIER, M., et al., "Modification of Electrodes with Dicarboxylate Self-Assembled Monolayers for Attachment and Detection of Nucleic Acids," <i>Langmuir</i> 13(23):6342-6344 (Nov. 1997).		
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Sheet	19	of	21	Attorney Docket Number	A-66566-7 (463037-00323)

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		First Named Inventor	O'CONNOR, Stephen D.		
		Art Unit	1753		
Examiner Name	NOGUEROLA, Alexander S.				
Sheet	20	of	21	Attorney Docket Number	A-66566-7 (483037-00323)

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	C151 †	TULLIUS, T., et al., "Iron(II) EDTA Used to Measure the Helical Twist Along Any DNA Molecule," <i>Science</i> , 230:679-681 (1985).	
	C152 †	TURRO, N., et al., "Molecular Recognition and Chemistry in Restricted Reaction Spaces. Photophysics and Photoinduced Electron Transfer on the Surfaces of Micelles, Dendrimers, and DNA," <i>Acc. Chem. Res.</i> , 24:332-340 (1991).	
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